



# Job Loss Analysis

ID No: 2000014 Status: Closed

Original Date: 06/Nov/2009  
Last Review Date: 11/Nov/2009

## Organization:

SBU: Global Manufacturing  
BU: Global Manufacturing Shared  
Work Type: Technical Process Engineering  
Title (Work Activity): Process Engineering Flow Meter Engineering Check  
Site/Region:

Personal Protective Equipment (PPE)	Selected	Comments
Additional Task Specific PPE		
Other		

## Reviewers

Reviewers Name	Position	Date Approved
Sims, Aaron (AVRZ)	Lead Engineer RI Refinery	11/06/09
Michelle Johansen	Process Engineering Manager RI Refinery	11/11/09

## Development Team

Development Team Member Name	Primary Contact	Position
Killeen, Brian (BKGO)	Y	Process Engineer
Watson, Chris (CWDJ)		Process Engineer

## Job Steps

No	Job Steps	Potential Hazard	Critical Actions
1	Identify flow meter type	1. Incorrect assumptions can lead to loss of time	1a. Before performing meter corrections verify that the flow meter is an orifice meter 1b. If not an orifice plate, contact I&E Engineering for calibration information.
2	Identify flowing conditions	1. Incorrect data on flowing conditions will result in an incorrect flow meter correction.	1. Verify that the base and flowing conditions Pressure, Temperature, and SG accurately represent the conditions at the flow meter

3	Verify that ChevFlow data matches calculation design inputs	1. Incorrect flow meter correction due to incorrect design information	1a. Consult ChevFlow when performing flow correction calculations and ensure that the values are consistent. 1b. Ensure that standard conditions on process data are at 60 deg F and 14.7 psia
4	Check Meter Range	1. Orifice readings lose accuracy near the bottom of their range. This could lead to large flow inaccuracies even with the proper correction calc in place.  2. Most flowmeter have a maximum differential pressure of 400 inches of water. Anything more can damage the flowmeter.	1. Talk to I&E engineering if orifice has less than 50 inches of water  2. or more than 400 inches of water differential at full scale.
5	Verify that ChevFlow data accurately represents information in the field	1. If steps 1-3 have been completed and inaccurate information is still being seen a discrepancy in ChevFlow data and field data may be the cause. This incorrect data could cause a large error in Flow Reading.	1a. Contact I&E reliability and I&E Engineering to determine if the orifice or the meter has been installed correctly. (Taps location, length of straight pipe, sqrt at meter, etc) 1b. Check that the orifice plate is the same on all documents and matches the real plate.
6	Check installation location of pressure and temperature instrumentation.	1. Instrumentation located away from instrument can give create inaccuracies in pressure and temperature compensation.	1a. Verify that temperature and pressure instrumentations are located where needed for real data. 1b. Determine if instrumentation upgrade to multivariable transmitters are justified to prevent need for calculated P/T compensation.